EFFECTS OF POSITIVE AND NEGATIVE PERSONALITY EVALUATIONS ON THE SELF-CONCEPTS OF HIGH SCHOOL SENIORS

By

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CHAPTER I

INTRODUCTION

As a person develops he forms an individualized manner of evaluating his world, including himself. A tendency to protect this manner of evaluation, and in particular, to maintain self-consistency or integrity has been noted often. Lecky (1951) emphasizes the drive to maintain the consistency of the core of the value system. Rogers (1951) emphasizes the need to maintain and enhance the general self-organization on all levels. Combs and Snygg (1959) emphasize the maintenance and enhancement of the phenomenal self. Stagner (1951) describes the self in perceptual terms and emphasizes a striving for perceptual constancy. Bills *et al*. (1951) state that "The goal of life is to produce consistency within the value system. It is the striving for maintenance and enhancement of this consistency within the value system that motivates behavior" (p. 257). Benjamins (1950) postulates a single goal for human beings: understanding how one fits into the scheme of life as he sees it.

> Self-esteem is viewed as the condition which comes about when one sees himself as "making sense," i.e., when one's concept of himself is compatible with the rest of his conceptual system. . . . In this light, new meaning is given to the tenacity with which one holds whatever identity he has established for himself, though it be an identity considered undesirable by others or even, in certain respects, by *himself*. The individual is helpless without his identity--without it he has no frame of reference with which to understand anything related to himself (p. 475).

It was perhaps this same phenomenon that Anderson (1952) referred to when he wrote, "*It is the familiar rather than the desirable that is the* comfortable role" (p. 236). Implicit within the concept of the familiar is the concept of the consistent. Thus, as these various writers assert, if self-consistency is threatened, psychological defenses, appropriate to the manner of one's self-evaluation, will be called forth.

The focus of this study is self-evaluation. From the above, it follows that the degree to which one accepts (approves of) himself will vary with one's general framework within which he perceives and evaluates the world. By the principle of self-consistency, even if an individual develops a negative or distorted self-evaluation from the standpoint of others, he yet will strive to protect and maintain it. Logically, if one is confronted with evidence that his self is different, or is potentially different, from what he asserts it to be, there are only two alternatives open: the self-concept must either be defended or changed. In the theories of Rogers, Combs and Snygg, Lecky, Benjamins, and others, it is argued that self-concept change is resisted and the prevailing self-concept defended vigorously. To change a maladaptive self-concept requires delicate and special circumstances, such as the secure and accepting atmosphere of client-centered psychotherapy. Therefore, the more usual reaction to threat to self-consistency is defense in the form of perceptual or cognitive distortion. Levitt (1950) (after Krech and Crutchfield) lists three principles concerning the development of defensive cognitive distortions:

1. "Where reality conflicts with the individual's strong need or motivation or belief, that is, with ego-involvement, cognitive distortions may result."
2. "The magnitude of cognitive distortion is proportionate to the degree of ego-involvement, that is, to the strength of the underlying need."

3. "The resistance of cognitive distortion to change is proportionate to the degree of ego-involvement" (p. 213).

In addition to these principles of self-consistency, the argument is presented that self-concept change can be effected in certain _threatening_ situations and that _cognitive_ consistency is a more basic need than self-consistency. That is to say, self-perception may be considered to be a _part_ of _field_ or general perceptual consistency. This point may be inferred from cognitive dissonance theory (Festinger, 1957), which states that if a person experiences dissonance or inconsistency among his cognitions, he will strive to reduce this condition and restore consistency or consonance, because dissonance produces a state of discomfort (anxiety) in the person. According to Festinger and Freedman (1964), "In a given situation that mode of dissonance reduction will be chosen which reduces the dissonance most effectively and is the easiest to employ" (p. 223). This same contention is argued by Rosenberg and Abelson (1960) from within the framework of Heider's cognitive balance theory.

Pepitone (1964) suggests two reasons for the pressure to reduce dissonance or inconsistency:

1. It is "negatively valued in most social environments."
2. It is "a threat to the need of the individual to maintain a close relationship between his cognitive structure and reality" (p. 48).

A clarification about the apparent nature of dissonance should be made. Incompatible ideas _per se_ do not generate dissonance as it is understood in Festinger's basic model. Inherent in the core conception of "dissonance" is an element of emotional investment in both of the conflicting cognitions. There is an implied "need" to have both of them be "true." This reason lies behind the experimental necessity to present information thought to be valued by the subjects. Therefore, objectively different information does not necessarily imply that it will be subjectively dissonant. Dissonance then must be between valued cognitions as perceived by the subject.

It is also likely that the dissonance produced by incoming information of a negative nature is different from the dissonance produced by incoming positive information. It seems likely that the positive dissonant information might well generate some anxiety, but the negative dissonant information would probably generate considerably more anxiety, assuming that the amount of dissonance generated was the same. This effect would seem to result from the combining of anxiety produced by the dissonance itself and that produced by the negative information as a noxious stimulus. On the other hand, the positive information, although dissonant, should have the effect of counteracting the anxiety produced by the dissonance itself. In effect, then, the amount of anxiety generated by the presence of dissonance should be proportionate to the nature (rewarding or punishing) of the incoming information which produces the dissonance.

In the present study the dissonance will be between one's self-evaluation and an evaluation of himself coming from authoritative (high credibility) sources outside himself. A person in this situation would have two avenues for reducing the dissonance: to change his self-evaluation or the evaluation of the information or its source (Osgood and Tannenbaum, 1955). Several factors would seem to determine which of these two recourses is taken:

1. The level of self-evaluation.
2. The credibility of the information.
3. The degree of dissonance between self-evaluation and evaluation by an outside source.
4. The direction of evaluation by others (positive or negative) in relation to the direction of self-evaluation.

In related research, Bergin (1961) investigated the relationship between personality interpretations and persuasive communications. High and low credibility communicators were used. The self-evaluation used was a masculinity-femininity scale. All subjects were subsequently given ratings discrepant with their self-evaluations at one of three levels. The most relevant finding was that subjects receiving a communication from a high credibility source changed self-ratings in the direction of the communication more than subjects receiving a communication from a low credibility source.

In the present study, credibility of communicator was held constant at "high" and it is predicted that the communication will be more or less accepted as a function of the level of self-evaluation reported; that is, that those subjects with low self-concept will be more vulnerable to pressure from authoritative outside evaluation.

Evans (1962) had undergraduates complete personality inventories. One-half of the subjects received fake personality descriptions. All subjects then took the questionnaire again. All experimental subjects modified self-descriptions in the direction of the fake evaluations ($p = .001$). This effect was noted for negative as well as positive evaluations. According to the predictions in the present study, it would be expected that this effect would not be as great for subjects with high self-concepts who have a chance to devalue the information.

Some relevant findings from a study by Pilisuk (1961) were that negative criticism from an anonymous source was regarded in a wholly negative way with subjects discrediting the criticism with any and all excuses available. Also, negative criticism from a close friend tended to be first rejected and then reinterpreted with the tendency to view the criticism as a joke. Subjects did not alter the positive view of their own behavior and actually increased their estimate of their acquaintanceships with their friends. These finding are somewhat peripheral to the present study, but seem to lend some support to the prediction that persons with high self-concepts will tend to reduce dissonance by devaluing the information or its source. They also seem to support the hypothesis that negative criticism from a high credibility source (close friend) will be rejected if the self-concept is positive.

Aronson (1955) in a study of the relation between self-concept and reaction to stress in sixth graders found that evaluation from an external source, apparently inconsistent with self-concept, did not necessarily produce stress. The experience of threat depended upon whether the inconsistent evaluations were positive or negative, with only the latter found to be associated with threat. Also, it was found that non-dissonant negative information was often associated with a perception of threat.

Hypotheses and Predictions

Dissonance reduction can be effected in a number of ways. In the present study two primary avenues of dissonance reduction were provided, although it is acknowledged that idiosyncratic means might also be used (e.g., refusal to participate seriously). These two dissonance reduction means were self-concept change and devaluation of the information.

It is hypothesized that persons with a high self-concept, who are presented with an authoritative negative evaluation of themselves, will tend to devalue the information. This reaction can be argued on the basis that a high self-concept implies a conviction of a high ability to evaluate the events of his phenomenal world. Secondly, it can be assumed that a high self-concept is rewarding and would be vigorously protected, once established.

On the other hand, it can be hypothesized that persons with a low self-concept,who are presented with an authoritative positive evaluation of themselves, will tend to accept the information. This reaction can be argued on the basis that they likely perceive, as generally poor, their ability to evaluate the events of their phenomenal world. Therefore, they likely feel that they could be wrong about themselves. Secondly, it can be assumed that a low self-concept is not very rewarding and, even though well established, the person with it would have an inclination to discard it, under appropriate conditions, that is, under the evaluation from an authoritative figure whom he might wish to believe.

It is also hypothesized that low self-concept persons are more anxious, by the very fact of their low self-concepts, than are high self-concept persons. Two conflicts would seem to account for this anxiety.

One involves the conviction that he is not as good, not as capable as others, but that he is capable of defining himself as incapable. The other conflict is between his present self-concept and his ideal self-concept. Both of these conflicts or dissonances are theoretically anxiety-producing.

For these reasons, a low self-concept is less stable than a high self-concept and would be subject to change to a higher level under conditions which allow for reduction of cognitive dissonance and thereby of anxiety. More specifically, it is hypothesized that persons with low self-concepts, forced into a position of choosing between protection of their low self-concepts in the face of a dissonant authoritative evaluation from outside or changing their self-concepts and simultaneously reducing the dissonance between their self-concepts and the authoritative outside evaluation, will choose the latter. One can think in simple terms of psychological economy. The stress of re-evaluating oneself is less than the stress of maintaining a familiar, but now dissonant, low self-concept.

These hypotheses can be summarized as follows:

1. The presence of cognitive dissonance produces anxiety and, conversely anxiety can be reduced by a reduction of cognitive dissonance. The amount of anxiety generated by dissonance is related to the nature (positive or negative) of the incoming information producing the dissonance.

2. When cognitive dissonance is present and anxiety is evoked, attempts will be made to reduce or defend against the anxiety.

3. Negative information about oneself, if it is accepted as valid, is stressful (anxiety-provoking) whether it is dissonant or not.

4. Level of self-concept and anxiety are inversely related.

5. A low self-concept is less stable (more vulnerable to outside pressure to change) than a high self-concept and the direction of change tends to be toward a higher self-concept.

6. The three anxiety-producing factors (cognitive dissonance, accepted negative information about oneself, and low self-concept) summate in persons in which more than one are present to raise the anxiety level, assuming that all factors are equally weighted for that person.

In light of these hypotheses and noting that subjects are to be divided by level of self-concept, that anxiety measures are to be obtained, and that positive and negative evaluations are to be given, the following specific predictions are advanced:

1. In regard to self-concept, it is predicted that subjects with high self-concepts will show less change in general than subjects with low self-concepts, and that subjects with low self-concepts will change more in response to positive evaluation than to negative evaluation.

2. In regard to acceptance or rejection of the personality evaluations, it is predicted that subjects with high self-concepts will reject negative information more strongly than subjects with low self-concepts, because the evaluation is both dissonant and punishing (negative) for the high self-concept subjects and is only punishing for the low self-concept subjects.

3. In regard to anxiety, it is predicted that there will be three groups of subjects who will show the greatest anxiety increase, because each involves two of the three summating anxiety factors: high self-concept subjects given a negative evaluation (involving dissonance and the punishment of the negative evaluation), low self-concept subjects given a negative evaluation (involving the punishment of the negative evaluation and the unrewarding aspects of a low self-concept), and low self-concept subjects given a positive evaluation (involving dissonance and the unrewarding aspects of a low self-concept).

Presented more concisely, the major predictions regarding the groups of primary interest are these:

(A) That high self-concept subjects given a negative evaluation will become more anxious but will not change self-concept and will reduce cognitive dissonance by devaluing the information.

(B) That low self-concept subjects given a positive evaluation will show no significant increase in anxiety, will accept the information as valid, and will increase self-concept scores.

(C) That high self-concept subjects given a positive evaluation will not change anxiety or self-concept scores and will accept the information as valid.

(D) That low self-concept subjects given a negative evaluation will raise anxiety scores, will not change self-concept scores, and will accept the information as valid.

CHAPTER II

METHOD

Subjects

One hundred and eighty-one high school seniors (87 males, 94 females) were the subjects in this study. This population was chosen for several reasons: they were less likely to be test-sophisticated than college students; as adolescents with a less well-established identity, they were likely to be more sensitive to and preoccupied with evaluations of themselves; and they have been less frequently studied than college students.

The subjects were obtained from two North Florida high schools. Fifty-six subjects were from Lake Weir High School (Marion County) and 125 were from Columbia (County) High School (Lake City). The families of these subjects are predominantly rural and small-town, of mostly middle and low-middle socioeconomic status. The mean age of males was 17.51 years; the mean age of females was 17.48. The total mean was 17.50; range 17-22; standard deviation 0.66. These subjects' ordinal positions in their families were shown to be distributed over the different self-concept levels in a manner not statistically different from chance. The stated religious preference for every subject was Christian. Ninety-four per cent of the subjects were Protestant; 65 per cent were Baptist and Methodist. The mean IQ of the sample, as measured by the Otis Beta test, was 106.51, which is in the average range. The standard deviation was

12.01. There was no significant difference between the over-all means of the males (106.53) and the females (106.49). Neither was the difference in variance significant (F = 1.11; 1.44 needed for significance at the .05 level). Twelfth-grade placement scores for these subjects follow a pattern similar to that of the IQ scores. There was no significant difference between the mean for males (270.95) and the mean for females (249.65) (t = 1.04; 1.98 at the .05 level). There were no significant differences between any means for different self-concept levels for either males or females. Thus, on these variables, this sample was apparently very homogeneous.

Measures

The Bills Index of Adjustment and Values (IAV), Adult and High School Senior Form, was used to measure self-concept and ideal self-concept (Appendix A). This instrument was chosen for the flexibility it affords and for the validity and reliability demonstrated with its use (Bills, *et al.*, 1951; Bills, 1958; Wylie, 1961). The IAV was designed to measure self-acceptance and self-ideal discrepancy. It consists of forty-nine items which were chosen from Allport's list of traits. These items were believed to be representative of those appearing most frequently in client-centered interviews. The subject usually gives three answers to each item:

1. How often are you this sort of person?
2. How do you feel about being this way?
3. How much of the time would you like this trait to be characteristic of you?

The sum of 1 is the Self score; the sum of 2 is the Self-Acceptance score; and the difference between 1 and 3 is the Self-Ideal discrepancy. The subject can also be asked to answer these same three questions about other people, defined in terms of a relevant peer group. This set of responses was not pertinent to the present study. Each answer is marked on a five-point scale. The marker variables are "Seldom," "Occasionally," "About half of the time," "A good deal of the time," and "Most of the time."

Split-half reliability of Self scores with 237 college students was .91 ($p = .001$). The discrepancy scores had a split-half reliability .88 ($p = .001$). These coefficients were corrected for the full length of the test by use of the Spearman-Brown formula. Test-retest reliability for Self scores was .83 and for discrepancy scores was .87 (both significant at the .001 level). The correlation of Acceptance of Self and discrepancy scores was -.77 (significant at the .001 level). This finding indicates that those persons who score high on Acceptance of Self also score low on discrepancy and those people with low Acceptance of Self scores show high discrepancy scores (Bills, 1958; Wylie, 1961).

In regard to validity of this instrument, predicted changes in Self-Acceptance by students in a student-centered class were detected at a level of probability less than .05. In addition, statements from students were scored by judges for direction of perceived threat (from self and others). There was 75 per cent agreement. Comparing direction of threat with Self-Acceptance, a chi-square of 24.6 was obtained ($p < .001$). "Acceptance of Self scores below the population mean were significant related to threat from self, and Acceptance of Self scores above the mean were significantly related to threat from others" (Bills et al., 1951, p. 261).

To determine construct validity the following comparisons were made:

1. Correlation of Self and Self-Acceptance scores was .90, implying that these two indices must be measuring essentially the same construct. For this reason, Self-Acceptance scores were not obtained from subjects in the present study.

2. Correlation of Self-Acceptance (IAV) and Self-Acceptance (Berger scale) was .49.

3. When Self-Acceptance (IAV) was correlated with Self-Acceptance (Phillips scale), r = .24.

4. Correlation of judge rated interviews for Self-Acceptance with IAV Self-Acceptance scores was .84 (Wylie, 1961).

Since the correlation between Self and Self-Acceptance scores was very high, it is assumed that these validity studies of Self-Acceptance scores also reflect the validity of Self scores. It was the conclusion of the present writer, in concurrence with Wylie (1961), that these studies indicate that the Bills' IAV is the most valid and reliable of instruments designed to measure self-concepts and ideal self-concepts.

The mean Self score of the standardization sample was 188.01; the standard deviation was 21.58. The mean Self score of the present sample was 178.01; the standard deviation was 25.48. The difference between these means was significant at the .001 level (t = 5.08). The difference between the variances was significant at the .01 level (F = 1.39).

Only six of the 16 high schools in the original normative study could be classified as similar to the high schools involved in the present study. The other ten high schools were city schools with an assumed larger proportion of students from higher socioeconomic levels. It is expected that persons from lower socioeconomic levels will have lower self-concepts. Since the subjects in the present study are from low and low-middle socioeconomic levels, it is likely that this fact accounts for the discrepancy between the means of this sample and the standardization sample. Also, the greater variance in the present sample is likely the result of a higher proportion of lower self-concepts (in relation to the standardization sample) which are less stable than higher self-concepts, as discussed in Chapter I.

The Zuckerman Affect Adjective Check List (AACL) was used to indicate the level of anxiety (and inferred threat) before and after experimental manipulations (Appendix B). Initially the use of this measure was primarily to indicate the effectiveness of the treatments intended to be threatening. However, it later became apparent that the importance of this measure extended much further than was expected (see Results Chapter). This instrument was chosen on the basis of demonstrated reliability and validity and, in particular, for its demonstrated sensitivity to time and situation sets. "Many of the traits in which clinicians are interested, particularly affective traits such as hostility or anxiety, are assumed to show large intra-individual variation from hour to hour and from day to day" (Zuckerman, 1960, p. 457).

A set of 61 adjectives with affective connotation was developed empirically. The list was derived from item analyses in two recent studies. One had compared a group of psychiatric patients rated high in anxiety with normal controls. Each group had been asked to check adjectives pertaining to them. There was a highly significant difference between the two groups. The other study measured the effects of a hypnotically induced anxiety state in normals. Words which showed significant changes in checking frequency during the anxiety condition were chosen. From these studies 21 adjectives were shown to discriminate between anxious and nonanxious persons. Eleven of these are negative and ten are positive, thus controlling somewhat for social desirability.

In studies of reliability, college subjects were given two identical versions of the AACL at the same time and asked to check one in a manner indicating how they "generally" feel and the other in a manner indicating how they feel "today." Half of the subjects received the General test first, half the Today test first. One week later the subjects took the two AACL's again, each subject receiving them in a reverse order. Order of taking the tests was not significant.

Two kinds of reliability were examined for the General and Today tests: internal consistency on the first testing and retest reliability from the first to the second test. Internal reliability was calculated by Kuder-Richardson Formula 20. The results indicated that the General test is reliable internally ($r = .72$, $p < .001$) and in retest ($r = .68$, $p < .001$), while the Today test is internally reliable on a single testing ($r = .68$, $p < .001$) but low in reliability on a retest ($r = .31$, $p < .05$). "This contrast in reliability bears out E's assumption about the different nature of tests attempting to measure stable and fluctuating traits" (Zuckerman, 1960, p. 485).

In studies of validity, college subjects were tested to see if the Today AACL score would show an increase when this test was given on the day of an examination. Subjects were given the General and Today versions of the AACL at the beginning of every other class meeting except those following test day meetings, a total of 10 nonexam and three exam days. The Today AACL scores increased significantly ($p < .0005$) on exam days.

With this instrument, no differences attributable to sex, age, or education have been detected. The limited data gathered with this instrument indicate that it is a valid measure of anxiety, particularly when subjects are given a set to respond to an immediate situation.

In the first (pretreatment) testing session a ten-item "Guess Who?" type of questionnaire (Jones, 1943) was administered to all subjects. This instrument has as its nucleus five positive and five negative items from the IAV (Appendix C). The items were chosen on a logical basis as to which would seem to be most pertinent to adolescents. The subjects were asked to list the names of three classmates who were best described by each word listed. This instrument was included for two reasons: to make the "personality analyses" more credible (both from the added test content and because adolescents have been shown to be very sensitive to peer opinions), and to contribute data allowing a comparison of self and peer evaluations. These data will be presented and analyzed in a separate study.

In the second (posttreatment) testing session, each subject in the two experimental groups was asked to rate the "personality analysis" he received as to how "right" or "wrong" it was about him. Subjects checked a five-point scale from "It was completely wrong about me" to "It was completely right about me" (Appendix D).

Procedure

At each school all subjects were dealt with in one group. The experiment comprised two phases, exactly one week apart. At the start of Phase I, after the experimenter was introduced to the group of high school seniors, he read them the following introduction:

> My name is Mr. Weaver. I am a clinical psychologist from the University in Gainesville. Today you are going to take part in some studies we are doing of different kinds of personalities. We want to learn more about the personalities of high school students in general and about your personalities in particular--and to help you learn more about yourselves. Since everybody likes to find out more about himself--what he is like, what strong and weak points he has--I think you will find this a very rewarding experience. It will be a free personality analysis for you. We would like for you to take some simple tests that my assistant will pass out now. These tests are very simple to take, but they have proved to be very accurate in analyzing personalities. All of this will take less than the time of this period. When we are finished today, we will take the test results back to the medical center and have analysts examine your tests and write out a description of your personality--what you are really like. I think all of you are familiar with the extensive psychological and psychiatric facilities we have at the university medical center. Now, we are going to be frank and honest with you. You are old enough to face the facts about yourself--whether they are good or bad. we will come back next week and tell you the results--and have you take a few other tests for further study--and answer any questions you might have.

At this point, instructions were read and explained for the first test. This procedure was followed with each succeeding test. The tests were administered in a fixed order: AACL, IAV, "Guess Who?" This order was used because the anxiety measure (AACL) was desired before any other testing was attempted. The IAV was given next because the self-concept measure was desired as close in time as possible to the anxiety measure.

The self-concept tests for all subjects were then scored. Six male subjects and one female subject were discarded for incorrect marking.

The subjects of each sex were then ranked by Self scores on the IAV on a continuum from "Low" to "High" self-concept. This ordering was then slightly altered for the following reason. The question was raised as to whether a high self-concept score with a low self-ideal discrepancy is not in reality reflective of a higher self-concept than the same high self-concept score with a large self-ideal discrepancy. Assuming that this reasoning was correct, subjects were reranked by altered Self scores derived by subtracting one point from the Self score for every 10 discrepancy points. These quantities were derived intuitively and by trial-and-error experimentation. The final ordering was only slightly different from the first with low-discrepancy subjects being raised somewhat on the continuum and high-discrepancy subjects being lowered somewhat in relation to their former position.

When the male and female continua of altered Self scores were formed, each was divided into three equal groups--"High" (HSC), "Medium" (MSC), and "Low" (LSC) self-concept levels, to which the experimental treatments would be administered. The positive items checked most often on the IAV by the HSC subjects (both males and females) were paraphrased into a "positive" personality evaluation (PE) (Appendix E). That is, these characteristics were presented as "You are ________" rather than "You have reported that you are __________." The negative items checked most often and the positive items checked least often on the IAV by LSC subjects were paraphrased into a "negative" personality evaluation (NE) (Appendix F). The subjects in the Control condition (C) received a sheet on which regret was expressed that their evaluations would not be ready for another day or two (Appendix G).

Then, beginning at the high self-concept end of the male and female continua, subjects were assigned to experimental treatment groups by the following order: NE-PE-C-PE-C-NE-C-NE-PE. This systematic alteration of conditions assured the assignment of the subject with the highest self-concept in each triad equally to the three different treatments.

The "personality evaluations" were on mimeographed sheets with the subject's name written out. An "explanation" of this seemingly impersonal touch was given to the subjects in the introductory remarks to Phase II which follow:

> Before I give out your personality evaluations and the tests I want you to take today, I want to make a couple of remarks. First, I would appreciate it very much if we could have no talking today, because of the nature of the things we'll be doing. Also, I want to urge you not to look at anybody else's personality evaluation. This is a very personal thing and you should respect other people's privacy.
>
> You'll notice that your personality analysis is on a mimeographed form. Let me tell you about this. The tests you took yield about a dozen different kinds of personality pictures. One of these usually comes very close to anybody's personality. So, we have these personality pictures mimeographed to save time, and we can select the one that fits your personality as revealed by the tests.
>
> Here's what we'll do today: When we hand these out, first read your personality analysis carefully and, as soon as you do, please fill out the tests that are on the next pages. They are similar to those you took last week, so I will not need to go over the instructions with you. These tests today will give us further information about your personality. After everybody is finished, you'll be given a chance to ask questions or discuss the tests.

At this point the name of each subject was called out and he was given his "personality evaluation" and the tests. The following order of presentation was observed: the "personality evaluation" was always first; the AACL always came next to measure the effect of the "personality evaluation" on anxiety; then the IAV and the scale which the subject used to rate the "accuracy" of the personality evaluation he had been given were presented, each alternately appearing first to guard against any position effect. When the last subject had completed his tests, the following announcement was made:

> May I have your full attention, please. I have a confession to make. These were not real personality evaluations. Let me explain what we were doing. What we are _really_ studying is how people _react_ to different things that are said about their personalities. Some of you got good evaluations, some got bad, and some did not get any. These analyses may or may not be anything like you. In addition, all we can find out about these tests is how _you see yourself_.
>
> Some of you may be disappointed that you did not get a chance to learn about yourself. If any of you would like to know your self-concept score and what it means, put your name on a piece of paper and give it to me. Then I will leave the scores and what they mean with your counselor and he (she) can give you the information.

Then any further questions were answered and misunderstandings clarified. It might be noted that the deception apparently was highly successful. Reactions to the "personality evaluations" were markedly emotional. Several girls and one boy were tearful; several boys expressed open anger. Some subjects receiving positive evaluations expressed surprise and joy. A few subjects wrote happy or angry comments on the test booklet. Also, the reactions when the deception was revealed were strong and seemed to reflect relief for some subjects and regret for others. Some subjects expressed chagrin and mild anger at being deceived, but most seemed to understand the necessity for the procedure. _All_ of the students were interested in their actual scores. A roster of scores and genuine but innocuous interpretations for different levels of scores were left with the school counselors.

CHAPTER III

RESULTS

In all statistical manipulations male and female subjects were first treated separately, since it has been shown that girls and boys may react differently in regard to self-evaluations and to threatening situations. For example, in a dissonance study, Steiner and Rogers (1963) found sex differences on several variables: use of devaluation of information source, inclination to tolerate conflict, and choice of dissonance reducing response. In the present study, in instances where no significant differences between the sexes were found, data for both were combined and the statistical procedures were repeated on the total sample. (See Appendix H for a listing of N's for all pertinent groupings.)

Analysis of variance following Winer's (1962) procedure was the primary statistical method utilized. Adjustments in the technique for groups with unequal N's were also used as outlined by Winer (1962). If significant variance ratios were revealed by this method, individual means were compared either by Duncan's New Multiple Range Test which allows simultaneous comparison of several means (Duncan, 1957; Edwards, 1962) or by ordinary "t" tests. Statistical significance was set prior to the experiment at the .05 level of probability.

Pretreatment Findings

Pretreatment Anxiety

The possible range of scores on the AACL is 0-21. In Zuckerman's original study (1960) a mean anxiety score of 7.38 and a standard deviation of 3.98 were found. In the present study the range was 0-17, the mean was 6.98, and the standard deviation was 2.93. The experimental situations in the Zuckerman study (1960) and in the present one were fairly similar and in both the Today version of the AACL was used. Findings in later studies (Zuckerman and Biase, 1962; Zuckerman *et al.*, 1963), although using somewhat dissimilar experimental situations, tended to approximate these norms.

All subjects in the present study were divided into "High" (HA) and "Low" (LA) pretreatment anxiety groups. Scores of seven or less were placed into the LA group; scores of eight or more were placed into the HA group. The mean anxiety score of the HA group was 9.74, whereas the mean of the LA group was 4.22. The difference between these means is highly significant ($p < .001$), indicating marked differences in the initial anxiety levels of these two groups of subjects. However, there was no significant difference between the mean scores of subjects who were to be given the different treatments, indicating that HA and LA subjects distributed in a similar manner over the different conditions (for males, $F = 0.76$, for females, $F = 1.89$).

For males alone, the differences between the mean pretreatment anxiety scores for different levels of self-concept were significant ($F = 5.11$, $p = .01$). The differences between the HSC and MSC means and between the MSC and LSC means were not significant (t = 0.25 and 1.89 respectively). However, the initial anxiety level of LSC males was significantly higher than that of HSC males (t = 2.28, p = .05) (Table 1).

TABLE 1

PRETREATMENT ANXIETY SCORES

	Males			Females		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
HSC	30	5.97*	3.15	32	7.25	3.46
MSC	28	6.18	3.36	31	6.39	3.02
LSC	29	7.69*	2.62	31	7.13	4.12

*Significantly different from each other at the .05 level of probability.

For females the picture was not so clear. There was no significant difference between the pretreatment anxiety score means of the different self-concept levels (F = 0.63) (Table 1). However, there was a significant interaction effect between initial anxiety scores and self-concept level (F = 3.10, $p < .05$), indicating that within each self-concept level, and with subjects separated as to HA or LA, the subjects who were put into the different treatments had initial anxiety scores which varied significantly from the others. For example, the mean initial anxiety scores of HA-LSC females who were to be given a PE were significantly higher than those of HA-LSC females who were to be used as controls (t = 4.62, p = .01). Such comparisons indicate that the amount of initial anxiety for females was not distributed evenly over the self-concept levels. This variable was not controlled when assigning subjects to treatments, since the basis of assignment was position on a high-to-low self-concept continuum.

Pretreatment Self-concept

There were no significant differences in the way that self-concept scores were distributed for males or females. Therefore, the data were combined and treated compositely. In addition, there were no significant differences in the way that self-concept scores were distributed for HA or LA subjects. Therefore, this variable was disregarded in the following analysis.

The possible range of Self scores on the IAV is 49-245. In the present study, the range was 84-229, with a mean of 178.03 and a standard deviation of 25.09. Means, standard deviations, and ranges for each self-concept level are presented in Table 2.

TABLE 2

PRETREATMENT SELF-CONCEPT SCORES

	N	Mean	Standard Deviation	Range
HSC	62	204.02	9.05	189-229
MSC	59	179.83	7.84	166-196
LSC	60	149.42	15.14	84-172

Even though the self-concept scores form a continuum from HSC to LSC, the differences between the means of the levels are highly significant ($F = 379.96$, $p < .001$). The difference between each pair of means was also significant at less than the .001 level (HSC-MSC, t = 15.71; MSC-LSC, t = 13.82; HSC-LSC, t = 24.05). There was no difference between the variance of HSC and MSC scores. However, the variance among LSC scores was significantly greater than that of either HSC or MSC scores ($p < .001$), likely due to the greater range of scores for LSC subjects. The main significance of this analysis is the demonstration that the means of the self-concept levels are significantly different from each other.

In order to compare these three self-concept levels of the present sample with similar levels in the standardization sample, high, medium, and low self-concept means were interpolated for the standardization sample (Table 3). The number of standard deviations of each self-concept level mean from the mean of the present sample was determined.

TABLE 3

HIGH, MEDIUM AND LOW SELF-CONCEPT LEVEL MEANS OF THE PRESENT SAMPLE AND THE STANDARDIZATION SAMPLE

	Present Sample	Standardization Sample	Difference
HSC	204.02	210.02	6.00
MSC	179.83	189.52	9.69
LSC	149.42	163.84	14.42

Then the scores at the same points of deviation on the distribution of the normative data were noted and were considered to be the approximate means of comparable self-concept level groups. The interpolated means of the standardization subjects are consistently higher than the means of the present sample, with the difference between the means increasing as the self-concept level decreases. In particular, the difference between the LSC groups of the two samples is much greater than between the two samples at other self-concept levels. This and other differences are probably attributable to the sample differences discussed in Chapter II.

Pretreatment Ideal Self-concept

Hypotheses were not advanced originally in connection with this variable, but since the IAV readily yields this measure, it was decided to gather these data and present them, in the hope that they might prove helpful in understanding the effects of the experimental treatments.

The distribution of these scores was different enough for males and females to preclude combining the data. The most interesting discrepancy was that level of ideal self-concept scores for males was not a significant function of level of anxiety, whereas LA females had significantly higher pretreatment ideal self-concept scores than HA females ($p < .05$). In addition, the over-all mean ideal self-concept score for females (225.50) was significantly higher than that for males (218.16) ($t = 2.97$, $p < .01$).

Analyses of variance show that the differences between the pretreatment ideal self-concept scores of subjects with different self-concept levels were highly significant for both males ($F = 9.49$, $p < .001$) and females ($F = 5.52$, $p < .01$).

For males there was no significant difference between the mean pretreatment ideal self-concept scores of HSC and MSC subjects ($t = 1.48$)

(Table 4). There are highly significant differences between HSC and LSC means (t = 2.93, p < .01). In addition, LSC males had significantly lower ideal self-concept scores than the over-all sample mean (t = 2.56, p = .01).

TABLE 4

PRETREATMENT IDEAL SELF-CONCEPT SCORES

	Males			Females		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
HSC	30	225.80	10.46	32	232.84	11.59
MSC	28	220.93	14.08	31	222.81	16.19
LSC	29	207.59	19.88	31	220.58	17.38

For females there was no significant difference between the mean pretreatment ideal self-concept scores of MSC and LSC subjects. There were, however, significant differences between HSC and MSC means (t = 2.82, p <.01) and between HSC and LSC means (t = 3.28, p <.01). In addition, HSC females had significantly higher ideal self-concept scores than the over-all sample mean (t = 4.51, p <.001) and higher than the mean of all female subjects (t = 2.79, p < .01).

Pretreatment Self-Ideal Discrepancies

Since there were no differences in the distribution of this measure for males and females, the data were combined and treated compositely. There was no significant difference in the Self-Ideal discrepancy scores between groups which were to be given the different treatments. In addition, there was no significant difference between the Self-ideal discrepancy scores of HA and LA subjects.

There were highly significant differences among the mean Self-ideal discrepancy scores of each self-concept level ($F = 118.13$, $p < .001$). The mean Self-ideal discrepancy for each self-concept level was also significantly different from every other mean at this same level of probability. In short, the Self-ideal discrepancy increases as the level of self-concept decreases.

Posttreatment Findings

The Specific Predictions

The effects of the treatments upon specific prediction subgroups are summarized in Table 5. In regard to Prediction (A), HSC males and females given a NE had no significant self-concept change and they rejected the information at the .05 level of probability, as predicted. Contrary to prediction, these subjects did not increase anxiety. In regard to Prediction (B), LSC females given a PE raised self-concept scores at the .05 level of probability, as predicted, but males showed no self-concept change. Subjects in this subgroup, as predicted, did not change anxiety scores and accepted the positive evaluation at the .05 level. In regard to Prediction (C), HSC males and females given a PE had no significant self-concept change, no significant anxiety change, and accepted the information at the .05 level of probability, as predicted. In regard to Prediction (D), LSC males and females given a NE raised self-concept scores at the .05 level of probability, contrary to the prediction of no change. Contrary to a prediction of an anxiety increase, there was no

TABLE 5

MEAN CHANGES INVOLVED WITH THE SPECIFIC PREDICTIONS

	Self-concept Change		Anxiety Change	Acceptance or Rejection of the Personality Evaluations
HSC-NE	Males:	+ 0.46	+0.57	1.65**
	Females:	- 4.20		
LSC-PE	Males:	+ 2.19	-1.50	3.65**
	Females:	+16.00*		
HSC-PE	Males:	- 6.65	-1.29	4.23**
	Females:	+ 8.64		
LSC-NE	Males:	+11.45*	+1.09	2.45**
	Females:	+16.20*		

*Significantly different from equivalent control group at the .05 level.

**Significantly different from sample mean at the .05 level.

significant change in anxiety scores. Also, the negative evaluation was rejected at the .05 level of probability, contrary to a prediction of acceptance.

The general effects of each treatment will now be reported. Effects were recorded upon measures of anxiety, self-concept, ideal self-concept, self-ideal discrepancy, and acceptance or rejection of the personality evaluations. Tables of means and variance ratios for each variable are presented in Appendix I.

The Control Condition

Since one of the primary comparisons is between treatment and control means, and since several control subgroups showed significant change, the posttreatment results for the control group are presented first (Table 6).

TABLE 6

CHANGES IN CONTROL SUBJECTS UPON RECEIVING THE CONTROL "TREATMENT" AFTER A ONE-WEEK DELAY (MEAN DIFFERENCES)

	N	Anxiety	Self-concept	Ideal Self-concept	Self-Ideal Discrepancy
H. S. Seniors	59	-0.02	-0.24	+1.12	+1.80
HSC Subjects	20	-0.65	-7.15*	-1.55	+5.55
MSC Subjects	19	-1.16	-0.11	+2.16	+1.79
LSC Subjects	20	+1.70	+6.55	+2.80	-1.95
HA Subjects	27	-2.30**	-0.53	+0.52	+2.41
LA Subjects	32	+2.25**	-0.59	+1.31	+1.28
Male Subjects	26	+0.50	-1.85	-1.00	+1.00
Female Subjects	33	-0.42	+1.03	+2.48	+2.42

*Significantly different change from pretreatment scores at the .05 level.

**Significantly different change from pretreatment scores at the .01 level.

Anxiety Change of Controls. Control subjects, *in toto*, or grouped according to self-concept level or sex, showed no significant change in anxiety scores (Table 6). When grouped according to initial anxiety level, however, HA subjects reduced anxiety and LA subjects raised anxiety, both significant at the .001 level. This reaction pattern was noted also for subjects given a NE.

Self-concept Change of Controls. Control subjects, *in toto*, or grouped according to anxiety level or sex, showed no significant change in self-concept scores (Table 6). Also, MSC and LSC subjects showed no significant change. However, HSC subjects lowered self-concept scores significantly ($p = .05$). This effect was noted primarily in male HSC subjects. The difference between the mean self-concept decrease of male and female HSC control subjects was significant at the .05 level (Table 9).

Ideal Self-concept Change and Self-ideal Discrepancy Change of Controls. On both of these measures, control subjects, *in toto*, or grouped according to self-concept level, anxiety level or sex, showed no significant changes (Table 6).

Effects of the Negative Evaluation

Anxiety Change of Subjects Given a NE. Compared with equivalent control groups, these subjects showed no significant change in anxiety scores, when considered *in toto* or grouped according to self-concept level or sex (Table 7). A decrease from pretreatment scores for HA subjects and an increase from pretreatment scores for LA subjects were significant at the .05 level of probability.

Self-concept Change of Subjects Given a NE. The effect of the NE upon these subjects *in toto* was an increase in self-concept scores which was almost significant at the .05 level ($t = 1.95$; 1.98 needed for significance) (Table 7). When grouped according to self-concept level, HSC

TABLE 7

SCORE CHANGES FOLLOWING THE NEGATIVE EVALUATION
(MEAN DIFFERENCES)

	N	Anxiety	Self-concept	Ideal Self-concept	Self-ideal Discrepancy	Rejection of Evaluation (Compared with Sample Mean)
H. S. Seniors	60	+1.28	+6.62	-4.23	-13.37***	2.05***
HSC Subjects	20	+0.57	-3.30	-5.60	-3.50	1.65***
MSC Subjects	20	-0.35	+11.70	-1.65	-13.45*	2.05***
LSC Subjects	20	+1.09	+11.45	-5.45	-23.15*	2.45**
HA Subjects	24	-1.83	+7.34	+1.13	-6.25	2.04***
LA Subjects	36	+3.36	+6.44	-7.81	-18.19**	2.06***
Male Subjects	30	+1.30	+7.93	-5.50	-17.83*	1.90***
Female Subjects	30	+1.33	+5.30	-2.97	-8.90	2.20***

*Significantly different from the equivalent control mean at the .05 level.

**Significantly different from the equivalent control mean at the .01 level.

***Significantly different from the equivalent control mean at the .001 level.

subjects lowered self-concept scores and MSC and LSC subjects increased theirs. This reaction pattern appeared also with subjects given a PE. The difference between HSC and either MSC or LSC subjects (who had the same increase) was significant at the .05 level.

There were no significant changes when subjects were grouped according to sex or anxiety level. However, significant differences did appear when subjects were considered by both sex and anxiety level (i.e., an interaction effect) (Table 9). These differences were apparent for males, but not for females. HSC-HA males given a NE increased their self-concept scores, while HSC-LA males decreased theirs. The difference between these means was significant at the .05 level of probability. By contrast, MSC-HA males given a NE showed no change, while MSC-LA males given a NE increased their self-concept scores significantly over the equivalent control group ($p = .05$). The difference between these two means was also significant ($p = .05$). By further contrast, LSC-HA males given a NE increased their self-concept scores, while LSC-LA males showed no change. The difference between these two means was significant at the .05 level. Thus, males of different self-concept levels and initial anxiety levels responded quite differently to the NE. This pattern of reaction, while present, was not significant under the other treatment conditions. One other difference in self-concept change under the NE is to be reported. In comparison with LSC-LA males who showed no change, LSC-LA females significantly increased their self-concept scores when given a NE ($p = .05$).

Ideal Self-concept Change and Self-Ideal Discrepancy Change of Subjects Given a NE. The general effect of the NE upon these subjects was a consistent but nonsignificant lowering of ideal self-concept scores (Table 7). This general lowering, in conjunction with the general increase of self-concept scores, produced highly significant reductions in self-ideal discrepancies, as shown in Table 7.

Rejection of the Personality Evaluations by Subjects Given a NE. All subjects given a NE, whether considered in toto, or grouped according to self-concept level, initial anxiety level or sex, strongly rejected the NE (Table 7). All groupings except LSC subjects rejected the NE at the .001 level of probability, as compared with the sample mean of 2.99 (where 3.00 is neutral). LSC subjects, whose self-evaluations were paraphrased to form the NE, rejected it at the .01 level. Even so, they came significantly closer to acceptance; the difference between the rejection means of HSC and LSC subjects given a NE was significant at the .05 level of probability.

Effects of the Positive Evaluation

Anxiety Change of Subjects Given a PE. When compared with equivalent control groups, these subjects showed no significant changes in anxiety scores, when considered in toto or grouped according to self-concept level or sex (Table 8). When compared with the equivalent control groups, initially HA subjects showed no significant change, but LA subjects who received the PE decreased anxiety significantly ($p = .001$). That is, LA control subjects (as well as LA-NE subjects) increased anxiety, but LA-PE subjects decreased anxiety. However, the anxiety decrease of the LA-PE subjects, as compared with their own pretreatment anxiety scores, was nonsignificant.

TABLE 8

SCORE CHANGES FOLLOWING THE POSITIVE EVALUATION (MEAN DIFFERENCES)

	N	Anxiety	Self-concept	Ideal Self-concept	Self-Ideal Discrepancy	Rejection of Evaluation (Compared with Sample Mean)
H. S. Seniors	62	-1.67	+5.18	+1.56	-5.47**	3.90***
HSC Subjects	22	-1.28	+1.00	+3.14	+1.36	4.23***
MSC Subjects	20	-2.02	+4.05	-1.70	-6.75*	3.79***
LSC Subjects	20	-1.75	+10.80	+3.20	-11.70*	3.65*
HA Subjects	32	-2.08	+5.01	+0.41	-5.12	3.75***
LA Subjects	30	-1.23***	+5.23	+2.87	-5.83*	4.06***
Male Subjects	31	-1.61	+1.06	+1.52	-3.13	3.94***
Female Subjects	31	-1.72	+9.29*	+1.68	-7.81**	3.86***

*Significantly different from the equivalent control mean at the .05 level.

**Significantly different from the equivalent control mean at the .01 level.

***Significantly different from the equivalent control mean at the .001 level.

Self-concept Changes of Subjects Given a PE. The effect of the PE upon subjects considered in toto was an increase in self-concept scores which was almost significant at the .05 level (t = 1.93; 1.96 needed for significance) (Table 8). There were no significant changes when subjects were grouped according to self-concept level or anxiety level. However, female subjects significantly increased their self-concept scores, as compared with controls (p = .05). In addition to the pretreatment self-concept scores, the posttreatment scores of males and females were also significantly different from each other (p = .05). Most of this effect occurred within the HSC group of subjects and is accounted for largely by a decrease in self-concept scores by HSC males (Table 9). This male decrease was significantly different from the female self-concept score increase at the .01 level of probability. The LSC-LA males reacted similarly. When compared with the LSC-LA females, they decreased their self-concept scores significantly (p = .05).

Ideal Self-concept Change and Self-ideal Discrepancy Change of Subjects Given a PE. When compared with equivalent control groups, subjects given a PE showed no significant changes in ideal self-concept scores, when considered in toto or grouped according to self-concept level, anxiety level or sex (Table 8). Self-ideal discrepancies decreased significantly (p = .01) for subjects considered in toto, when compared with controls. MSC and LSC subjects showed no significant change. LA subjects decreased self-ideal discrepancies significantly (p = .05) and HA subjects showed a strong tendency in that direction (t = 1.50; 1.99 needed for significance at the .05 level). When grouped according to sex, female subjects showed a significant decrease in self-ideal

TABLE 9

SELF-CONCEPT SCORE CHANGES WHEN TREATMENT, SELF-CONCEPT LEVEL, ANXIETY LEVEL, AND SEX ARE CONSIDERED (MEAN DIFFERENCES)

	NE				PE				C			
	N	HA	N	LA	N	HA	N	LA	N	HA	N	LA
HSC Males	4	+14.75	6	-13.83	5	-7.80	6	-5.50	4	-9.50	5	-17.80
HSC Females	3	-4.00	7	-4.29	7	+6.29	4	+12.75	8	-1.62	3	-2.00
MSC Males	4	+0.50	6	+32.17*	5	-1.00	5	+10.80	4	+4.00	4	-8.00
MSC Females	5	-3.60	5	+11.40	3	-7.67	7	+8.00	3	+1.00	8	+1.38
LSC Males	3	+23.33	7	-0.43	7	+10.71	3	-6.33	5	+5.00	4	+17.50
LSC Females	5	+13.20	5	+19.20	5	+20.40	5	+11.60	3	-2.67	8	+5.50

*Significantly different from the equivalent control mean at the .05 level.

discrepancy after the PE (p = .05), but the male subjects showed no significant change.

The effect of the NE on self-ideal discrepancy was generally more pronounced than the effect of the PE, as can be noted in a comparison of Tables 7 and 8. The difference between the decreases of total subjects given a NE and a PE was almost significant (t = 1.90; 1.98 needed at the .05 level). Differences between subjects grouped according to self-concept level were not significant. However, compared with the PE, the NE produced a significantly greater decrease in self-ideal discrepancy for LA subjects (p = .05); HA subjects showed no difference in response to the two treatments. Male subjects given a NE also had a significantly greater decrease in self-ideal discrepancy compared with male subjects given a PE (p = .05). It was also significantly different from the decrease by females given a NE (p = .05). There was no significant difference in the decrease in self-ideal discrepancy by female subjects given a NE and a PE. The decrease by females given a PE was significantly greater than that of males given a PE (p = .05).

Acceptance of the Personality Evaluations by Subjects Given a PE. All of these subjects, whether considered *in toto* or grouped according to self-concept level, initial anxiety level or sex, accepted the PE significantly (Table 8). All groupings except LSC subjects accepted the evaluation at the .001 level of probability, as compared with the sample mean of 2.99 (where 3.00 is neutral). LSC subjects, who had evaluated themselves in relatively negative terms, accepted the PE at the .05 level. Even so, they came significantly closer to rejection; the difference between the acceptance means of HSC and LSC subjects given a PE was significant at the .05 level of probability.

CHAPTER IV

DISCUSSION

As it became apparent that initial level of anxiety played an important role in determining the effects of experimental treatments, the results became considerably more complicated than expected, with their implications somewhat less clear. In this chapter, the results will be discussed at first in terms of the primary predictions and then in terms of the general effects of the experimental treatments upon the major variables of anxiety, self-concept, ideal self-concept, self-ideal discrepancy, and subject ratings of the personality evaluations. The treatment effects upon these variables will be noted upon the subjects considered *in toto* and grouped according to self-concept level, initial anxiety level and sex.

In Regard to Specific Predictions

(A). HSC subjects given a NE had no significant self-concept change and significantly rejected the information, as predicted. Contrary to prediction, there was no increase in anxiety scores. Neither was there any significant anxiety change in any subjects grouped by self-concept level or by sex. However, when subjects were grouped by initial level of anxiety, there were consistent changes which will be discussed later. It therefore appears that no change in anxiety, pertinent only to the treatments, was produced, or that the only *measurable* anxiety change was that dependent upon initial anxiety level. There could have been an additional anxiety effect produced by the treatments which was not detected by the measurement device utilized. That is, anxiety could have been increased for all subjects given a NE, but the information was rejected and the anxiety thereby reduced as the subject read the NE and before he checked the items on the AACL. If this were the case, a better anxiety measure would be one that measured some autonomic effect as the subject read his personality evaluation.

(B). LSC females given a PE raised self-concept scores significantly as predicted, but males showed no self-concept change. In regard to self-concept change, a pattern of females being open to suggestion and males being reactive against it emerged. This pattern will be examined further in the more general discussion. As predicted, subjects in this subgroup did not change anxiety scores, and accepted the positive evaluation. This latter response was part of a general pattern in which subjects given a PE accepted it and subjects given a NE rejected it, regardless of self-concept level and the subjects' own self-evaluations. Apparently the subjects were quite willing to accept a discrepant PE, but quite reluctant to accept a discrepant NE, even though unpleasant dissonance with their own self-evaluations was theoretically produced in each case, which should have at least raised anxiety. The likely explanation is that a statement about a person is perceived very differently by him depending on whether it was said by himself or by another. That is, the literal content of the evaluation may not have been responded to, but rather was perceived as an emotionally supportive and complimentary communication, in the case of the discrepant PE, or as a hostile and derogatory communication, in the case of the discrepant NE.

(C). HSC subjects given a PE had no significant self-concept change, no significant anxiety change, and significantly accepted the information, as predicted. Since this was the only subgroup in which no dissonance was produced, these results were expected and are taken as being straightforwardly compatible with cognitive dissonance theory.

(D). Contrary to a prediction of no change, LSC males and females given a NE significantly raised self-concept scores. This response seems to be a defensive reaction to a noxious stimulus. Within the cognitive dissonance framework, one could see this response as a choice between degrees of dissonance, a choice between explicit admission of a very low self-concept which is in marked dissonance with aspirations (ideal self-concept), and denial of the low self-concept, which denial is in dissonance with what these subjects "really" feel about themselves. This defensive resolution should also account for the significant rejection of the NE, contrary to a prediction of acceptance. In addition, there was no significant change in anxiety scores, contrary to a prediction of an anxiety increase. The likely explanation for this result was discussed under (A) above.

The Control Condition

In general, control subjects showed few significant changes, thereby lending confidence to the measured treatment effects. A few exceptions were noted and for these subgroups the effects of the time interval and the lack of promised information were not entirely neutral. In regard to anxiety, the only significant changes for control subjects were the same as those for subjects receiving a NE. That is, HA subjects significantly reduced anxiety scores and LA subjects significantly increased them. It appears then that the control condition may have been perceived as a negative treatment, in some respects. This general pattern of reaction for HA and LA subjects will be discussed further when the results of the NE are discussed.

The only other significant change under the control condition was a significant decrease in self-concept scores by HSC controls. Apparently this response reflects frustration. It seems that the communication that their personality evaluations were not yet prepared and available was perceived as punishing and these subjects reacted in a self-depreciatory manner. The result would only be expected with HSC subjects with higher ideal self-concepts, from which one could infer a greater emotional involvement and expectancy set.

Effects of the Negative and Positive Evaluations

As mentioned above, the effects of the control conditions upon the anxiety scores of initially HA and LA subjects was similar to those of the NE. Subjects with initially high anxiety lowered their anxiety scores; subjects with the initially low anxiety raised theirs. The possibility should be considered that part of these changes in anxiety scores could be accounted for by a statistical artifact. That is, when there is a large variation in a distribution of scores, on retest extreme scores tend to regress toward the mean. This regression may account for some of the change in anxiety scores. However, if we assume that these conditions were threatening, to some extent, to all subjects receiving them (i.e., noxious stimulation), then apparently the HA subjects were denying their increase in anxiety to the point of reducing their anxiety scores below their pretreatment level. By contrast, the initially low anxious subjects were comfortable enough to admit the anxiety increase. The apparent fact that the control condition and the NE were threatening to all subjects is masked by the different anxiety reports of the HA and LA subjects.

Defense mechanisms are defined after Eriksen (1954) as learned ways of avoiding or dealing with anxiety that arises from threats to self-esteem. It is also assumed that high anxious persons are functioning with a less than optimal psychological adjustment, which would lead them to respond more drastically to additional threat. In the present situation, as Chodorkoff (1954) has desribed, defensiveness can be conceived as "primarily a perceptual phenomonon which follows as a consequence of threat to the individual's self" (p. 508). That is, this defense prevents the accurate perception of threatening stimuli from reaching awareness.

Whereas HA subjects given a PE decreased anxiety significantly as did all HA subjects, the LA subjects given a PE also decreased anxiety very significantly, as compared with controls and LA subjects given a NE. It is also likely that the anxiety decrease of the HA subjects given a PE, while similar quantitatively to that of the HA controls and HA subjects given a NE, is the result of the nonthreatening nature of the PE.

It should also be noted that the AACL was quite capable of registering increased anxiety of the already high anxious subjects. With this sample the highest anxiety score was 17, whereas the upper limit of the

AACL is 21. Therefore, this result is not likely an artifact of limitations of the instrument.

Subjects receiving a NE and those receiving a PE both raised self-concept scores almost significantly, as compared with control subjects. At first glance, it would seem unreasonable to look for a single explanation for both similar effects. However, the different effects upon anxiety by the NE and the PE suggest different determinants for these similar changes in self-concept. That is, if we consider, the LA subjects to be better adjusted and as more reliable reporters of effects related directly to the treatments, it is apparent that the NE was perceived as a threatening stimulus and the PE was perceived as nonthreatening. Or, stated another way, the NE increased anxiety and the PE decreased anxiety in these subjects. Therefore, it appears that the self-concept increase following the NE is a defensive reaction to threat. This effect would be compatible with Goldfarb's (1961) finding that increased self-acceptance under stress was a defensive reaction. Also, the self-concept increase following the PE can be seen as a move toward a desired goal (ideal self) facilitated by the anxiety-reducing (nonthreatening) communication.

The effects of the NE and PE upon ideal self-concept scores support this interpretation. Subjects given a NE consistently lowered ideal self-concept scores, although nonsignificantly. This movement is compatible with the interpretation that subjects given a NE reacted defensively to protect their self-esteem. By contrast, subjects given a PE consistently raised ideal self-concept scores, although nonsignificantly. This reaction is compatible with the interpretation that the PE facilitated the expansion of self-esteem and allowed this increase in aspiration. These changes in self-concept and ideal self-concept scores resulted in a significant decrease in self-ideal discrepancies for subjects receiving both the NE and the PE.

In general, there was less change in ideal self-concept scores than in self-concept scores. This result is consistent with the finding of Rogers (1961) that "the representation of the ideal self is much more stable than the representation of the self" (p. 236). In patients after successful psychotherapy, he had expected alterations in both self and ideal-self, but found only changes in the former. He concluded that "it appears to be the concept of the self which exhibits the greatest change" (p. 236). These findings also suggest that the self-concept of a normal person may be a much less stable phenomenon than it is usually thought to be.

The explanation for the self-concept decrease of LSC-LA males when given a PE is difficult. It was found that LSC males have an ideal self-concept significantly lower than the sample mean. Those LSC males with low anxiety might be thought to be comfortable at this lower level of self-concept and aspiration. However, it is asserted that a low self-concept is never fully desired or accepted. One could hypothesize a defensive assertion of "I really like to be this way!" This consideration would be consistent with Lawrence and Festinger's (1962) observation that "if an organism continues to engage in an activity while possessing information that, considered alone, would lead it to discontinue the activity, it will develop some extra attraction for the activity or its consequences in order to give itself additional justification for continuing to engage in the behavior" (p. 156). The entertaining of higher self-concepts might put these LSC subjects in the threatening position of expecting more from themselves which they feel incapable of giving in spite of their wishes.

Several subgroups did not have a significant decrease in self-ideal discrepancy. HSC subjects, both those given a NE and a PE, showed no significant change. This result seems related to the inferred better adjustment of HSC subjects. If this were true, they would be relatively more impervious to change under pressure from outside. This interpretation of a better adjustment for HSC subjects is substantiated also by their significantly lower pretreatment self-ideal discrepancies, which are viewed as indicators of psychological adjustment (Bills _et al_., 1951).

HA subjects, both those given a NE and a PE, showed no significant change in self-ideal discrepancy. This result was determined by a relative lack of change in ideal self-concept scores following treatment. This pattern of response is in keeping with the inferred poorer adjustment of the HA subjects. A consistent response pattern of defensive reactivity or denial has been noted in HA subjects. While most other subjects given a PE were raising ideal self-concept scores, HA subjects made no change. While most other subjects given a NE lowered ideal self-concept scores, HA subjects raised theirs. This opposite pattern of response resulted in a significant lack of decrease in self-ideal discrepancy.

Different response tendencies of males and females, discussed earlier, resulted in different reductions in self-ideal discrepancies. The significantly greater decrease by males given a NE compared with females given a NE appears to be a result of the tendency of the males to defensively overreact to negative stimulation. The significantly greater decrease by females given a PE compared with males given a PE is apparently a result of the tendency of the females to be more suggestible to positive stimulation.

Characteristics of "suggestibility" in females and "reactivity" in males have been offered previously as explanatory constructs. It is a common stereotype in this culture that females are "suggestible" and that males resist being influenced. Patel and Gordon (1960) confirmed this observation in a study with high school students. They found that "girls accepted significantly more suggestions than did boys" (p. 414). They also noted "what may almost be a reaction formation against prestige in the senior boys . . . " (p. 417). That is, the senior boys were not impressed by the prestige of the suggestion source. Apparently this pattern, which was also demonstrated by Tuddenham (1958), is the same one observed in the present study and to it can be related some of the differences in the response patterns of males and females in this experiment. In relation to this pattern, it was suggested in Chapter I in connection with Bergin's (1961) study that LSC subjects would be more suggestible than HSC subjects. This prediction was not borne out, as was discussed above. LSC subjects did make more self-concept changes but apparently, since they were not consistently in the direction of the "suggestion," they were more a function of defensiveness.

In regard to acceptance or rejection of the personality evaluations, the fact that LSC subjects significantly rejected the NE, which was a paraphrase of their own self-evaluations, and significantly accepted the PE, which was quite discrepant with their own reported self-evaluations, must be interpreted in terms of "hope" and "expectancy" (Harvey and Schroder, 1963), rather than in terms of the literalness of self-reports. "Hope" appears to be the more appropriate baseline from which to predict reactions, Harvey and Shroder (1963) assert. In discussing Van Ostrand's (1960) study, they state that "subjects low in self-esteem who presumably expected to be rated low by others, reacted more strongly and displayed greater negative effect when actually rated low by another person than did persons of high self-esteem" (p. 107). It might also be added that they react more "unrealistically," when hope and expectancy are not considered. Both Van Ostrand's results and some of those in the present study are not in accord with predictions which Festinger would make from his cognitive dissonance model. It might be added that the fact that LSC subjects rejected the NE and accepted the PE to a degree significantly less than HSC subjects indicated that they were responding to the reality of their own self-evaluations, as well as to their hopes.

It has been demonstrated that certain changes in self-concept, as well as in anxiety, ideal self-concept, and self-ideal discrepancy, can be effected by experimental manipulations. It is likely that these changes were temporary and rather superficial. As Combs and Snygg (1959) have pointed out, transient and peripheral changes in the self may occur fairly quickly, but "changes produced by events inconsistent with well-differentiated self-concepts are likely to be slow and laborious, if indeed they occur at all" (p. 159). In addition, Bronson (1959) has shown that the self-concepts of adolescents are more volatile than those of adults, that their feelings about themselves show greater variability over short periods of time. Also, Engle (1959) has shown that low self-concepts of adolescents are even less stable.

The finding in this study that self-concept score increases can be obtained following a NE are in disagreement with Wright (1956) who found no change in self-concept (using the IAV) following threat. Perhaps the age and status differences in the subjects and the differences in experimental settings would account for the discrepant findings. Wright used college sophomores seen individually. The subject was told that the experimenter was concerned about some of his test answers, which were listed. This negative information appears to be less severe than the NE in the present study and for this reason may not have instigated the reactive increase in self-concept scores found.

The general effect of the NE raising self-concept scores is in opposition to Levanway's (1955) prediction that stress should produce less favorable attitudes toward oneself. It is more compatible with conventional psychodynamic theorizing that threat produces anxiety which calls forth ego defenses, which in this instance appear to be denial and reaction formation. In a somewhat similar study, Stotland and Zander (1958) found that subjects told that they had failed became more sensitive to the opinions of others. In a sense, the NE is a report of failure and one would expect defensive reactions which would be intense in proportion to the soundness of one's psychological adjustment. That is, LSC and HA subjects would be expected to react with the strongest defensive reaction, which was the case in this study.

Evans (1962) found that all his subjects modified self-description in the direction of fake evaluations, as was discussed in Chapter I. Taken as a group, the HSC subjects given fake evaluations in the present study (NE) showed no significant self-concept change, although their change was in the direction of the NE (-3.30). Apparently, their assumed better psychological adjustments helped them resist this pressure. On the other hand, the LSC subjects given a fake evaluation increased their self-concept scores considerably (+10.80), if nonsignificantly. Therefore these findings are in general agreement with Evans', but with the predicted difference that HSC subjects are more resistant to pressure to change.

The results of this study were in general agreement with those of Aronson (1955), although the beneficial effects of the PE were apparently not weighted as highly as they should have been in relation to the detrimental effects of the NE. The assumed dissonant PE for LSC subjects apparently did not produce stress. These subjects uniformly reduced anxiety, but not significantly (mean = -1.50).

In keeping with Aronson's (1955) finding that the direction (positive or negative) of the dissonant evaluation was important, Harvey (1963) has stated that the effects of comparable deviations in opposite directions from a person's expectancy will be similar only if the expectancy were not tied up with a "directional striving." In the present study, it has certainly been assumed that LSC subjects have what could be called a "striving" for more self-esteem. To apply Harvey's reasoning to the present situation, a person might evaluate himself as very low and expect to be evaluated that way, but wish to be higher. If he is then evaluated as higher, the cognitive dissonance would produce positive effect (not anxiety) for, while the dissonance was being produced, a counteracting valued end state was being confirmed. Apparently, the *direction* of the dissonance is of major importance.

Suggestions for Future Research

In an earlier study, Harvey, Kelley and Shapiro (1957) asserted that dissonance *per se* need not produce anxiety. An uncomfortable conflict will be experienced only if two separate tendencies are strong:

1. The amount of pressure exerted upon the recipient to accept the discrepant evaluation.
2. The strength of the person's resistance to accepting them.

In the present study, no explicit pressure to accept the evaluation was applied. In future studies in this area, the control of both of these variables should be attempted for a clearer understanding of efforts at dissonance reduction.

Another suggestion for future research is that the *direction* of the dissonance produced should be considered. As Harvey (1963) has emphasized, this consideration is crucial to predicting the effects.

An elementary but important consideration for future studies of this nature is an increased number of subjects. While statistically manipulable, cell means as low as some in this study are not likely to show clearly the effects of the experimental treatments. In a similar study with three self-concept levels, three treatments, two anxiety levels, and differentiation by sex, a minimum of 360 subjects, or double the number of this study, should be sought.

Conclusion

From the present study several general inferences can be drawn:

1. In understanding the self-reports of high school seniors, level of anxiety must be considered.

2. Male and female adolescents react differently to evaluations of themselves by others. Males tend to react warily and defensively; females tend to be more suggestible.

3. "Hope" and "expectance," as well as factual discrepancy, must be considered in understanding the resolution of cognitive dissonance.

4. The possession of a LSC is almost certain to lead to stressful conflicts both within the person and in his relations to society and will result in defensive maneuvers.

5. To raise self-concept (in the manner and to the degree dealt with in this study), a negative evaluation is more effective with males and a positive evaluation is more effective with females.

6. For the fullest understanding of self-concept change as a function of evaluations by others, self-concept level, anxiety level and direction of evaluation (positive or negative) should be considered concurrently, especially with males.

In conclusion, from the present study and previous research, one can point to the following variables as bearing directly upon the production of cognitive dissonance and its reduction:

1. The direction (positive or negative) in relation to the existing cognition.

2. The size of the discrepancy between the cognition.

3. The believability of the new information.

4. The strength of the person's resistance to change.

5. The pressure exerted for him to change.

6. The possible avenues open for dissonance reduction.

7. The psychological adjustment of the recipient (including self-concept and anxiety levels).
8. The personal hopes and expectations of the recipient.

CHAPTER V

SUMMARY

One-hundred-eighty-one high school seniors were given the Zuckerman Affect Adjective Check List (AACL) as an anxiety measure and the Bills Index of Adjustment and Values (IAV) as a self-concept and ideal-self-concept measure. They were ranked by adjusted self-concept scores into "High," "Medium," and "Low" self-concept groups. The most frequently checked positive self-concept items of the High group were paraphrased into a "Positive Personality Evaluation" (PE) and the most frequently checked negative self-concept items and the least frequently checked positive items of the Low group were paraphrased into a "Negative Personality Evaluation" (NE). A third of each self-concept group were given the PE, a third the NE, and a third were used as controls and told that their evaluations would not be ready for another day of two. After the "personality evaluations" were given, the AACL and the IAV were readministered and the experimental subjects were given an opportunity to rate the correctness of their "personality evaluations" on a five-point scale.

The major hypotheses and predictions were derived from cognitive dissonance and self-consistency theories. It was predicted

(A) That High self-concept (HSC) subjects given a NE would become more anxious, but would not change self-concept and would reduce cognitive dissonance by devaluing the personality evaluation.

(B) That Low self-concept (LSC) subjects given a PE would become more anxious, would accept the information as valid, and would change self-concept scores.

(C) That High self-concept subjects given a PE would not change anxiety or self-concept scores and would accept the evaluations as valid.

(D) That Low self-concept subjects given a NE would raise anxiety scores, would not change self-concept scores, and would accept the information as valid.

The predictions were partially confirmed. It was found necessary to divide the subjects into initially high anxious (HA) and low anxious (LA) groups in order to demonstrate some of the effects. In regard to the specific predictions, the following results were obtained.

(A) HSC males and females given a NE had no significant self-concept change and they rejected the information at the .05 level of probability, as predicted. Contrary to prediction, they did not increase anxiety.

(B) LSC females given a PE raised self-concept scores at the .05 level of probability, as predicted, but males showed no self-concept change. Subjects in this subgroup, as predicted, did not change anxiety scores and accepted the positive evaluacion at the .05 level.

(C) HSC males and females given a PE had no significant self-concept change, no significant anxiety change, and accepted the information at the .05 level of probability, as predicted.

(D) LSC males and females given a NE raised self-concept scores at the .05 level of probability, contrary to the prediction of no change. Contrary to a prediction of an anxiety increase, there was no significant change in anxiety scores. Also, the negative evaluation was rejected at the .05 level of probability, contract to a prediction of acceptance.

In regard to the general effects of each treatment, the following results can be reported. Following the NE, there was no significant change in anxiety scores or ideal self-concept scores. However, these subjects showed an almost significant increase in self-concept scores ($t = 1.95$; 1.98 needed for significance at the .05 level). There was a highly significant decrease in self-ideal discrepancies ($p < .001$). These subjects rejected the NE at a highly significant level ($p < .001$).

Following the PE, there was no significant change in anxiety scores or ideal self-concept scores. However there was an almost significant increase in self-concept scores ($t = 1.93$; 1.96 needed for significance at the .05 level). There was a highly significant decrease in self-ideal discrepancies ($p < .01$). These subjects accepted the PE at a highly significant level ($p < .001$).

Changes in anxiety scores following treatments were very different for subjects grouped according to initial anxiety level. HA subjects lowered anxiety scores following any treatment. LA subjects raised anxiety scores under the NE and Control treatments and lowered anxiety scores under the PE.

The results were discussed in terms of cognitive dissonance and self-consistency theories and were related to recent research. This study indicated that the understanding of subjects' reactions to cognitive dissonance is dependent upon self-concept level, anxiety level and sex. Criticisms of this study and suggestions for future research were offered.

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APPENDICES

APPENDIX A

INSTRUCTIONS AND SCORE SHEET FOR THE IAV

There is a need for each of us to know more about ourselves, but seldom do we have an opportunity to look at ourselves as we are or as we would like to be. On the following page is a list of terms that to a certain degree describe people. Take each term separately and apply it to yourself by completing the following sentence:

I AM A (AN) ____________ PERSON.

The first word in the list is academic, so you would substitute this term in the above sentence. It would read--I am an academic person.

Then decide HOW MUCH OF THE TIME this statement is like you, i.e., is typical or characteristic of you as an individual, and rate yourself on a scale from one to five according to the following key.

1. Seldom, is this like me.
2. Occasionally, this is like me.
3. About half of the time, this is like me.
4. A good deal of the time, this is like me.
5. Most of the time, this is like me.

Select the number beside the phrase that tells how much of the time the statement is like you and insert it in Column I on the next page.

EXAMPLE: Beside the term ACADEMIC, number two is inserted to indicate that--occasionally, I am an academic person.

Skip over Column II and go to Column III. Using the same term, complete the following sentence:

I WOULD LIKE TO BE A (AN) ____________ PERSON.

Then decide HOW MUCH OF THE TIME you would like this trait to be characteristic of you and rate yourself on the following five-point scale.

1. Seldom, would I like this to be me.
2. Occasionally, I would like this to be me.
3. About half of the time, I would like this to be me.
4. A good deal of the time, I would like this to be me.
5. Most of the time, I would like this to be me.

You will select the number beside the phrase that tells how much of the time you would like to be this kind of person and insert the number in Column III.

EXAMPLE: In Column III beside the term ACADEMIC, number five is inserted to indicate that most of the time, I would like to be this kind of person.

Start with the word ACCEPTABLE and fill in Columns I and III before going on to the next word. There is no time limit. Be honest with yourself so that your description will be a true measure of how you look at yourself.

Name ______________________________

	I	II	III
a. academic	___	___	___
1. acceptable	___	___	___
2. accurate	___	___	___
3. alert	___	___	___
4. ambitious	___	___	___
5. annoying	___	___	___
6. busy	___	___	___
7. calm	___	___	___
8. charming	___	___	___
9. clever	___	___	___
10. competent	___	___	___
11. confident	___	___	___
12. considerate	___	___	___
13. cruel	___	___	___
14. democratic	___	___	___
15. dependable	___	___	___
16. economical	___	___	___
17. efficient	___	___	___
18. fearful	___	___	___
19. friendly	___	___	___
20. fashionable	___	___	___
21. helpful	___	___	___
22. intellectual	___	___	___
23. kind	___	___	___
24. logical	___	___	___
25. meddlesome	___	___	___

	I	II	III
26. merry	___	___	___
27. mature	___	___	___
28. nervous	___	___	___
29. normal	___	___	___
30. optimistic	___	___	___
31. poised	___	___	___
32. purposeful	___	___	___
33. reasonable	___	___	___
34. reckless	___	___	___
35. responsible	___	___	___
36. sarcastic	___	___	___
37. sincere	___	___	___
38. stable	___	___	___
39. studious	___	___	___
40. successful	___	___	___
41. stubborn	___	___	___
42. tactful	___	___	___
43. teachable	___	___	___
44. useful	___	___	___
45. worthy	___	___	___
46. broad-minded	___	___	___
47. businesslike	___	___	___
48. competitive	___	___	___
49. fault-finding	___	___	___

APPENDIX B

INSTRUCTIONS AND SCORE SHEET FOR THE AACL

YOUR NAME ______________________ AGE __________ GRADE _________

Below you will find words which describe different kinds of feelings. Check the words which describe how you feel now-today. Some of the Words may sound alike but we want you to check all of the words that describe your feelings.

1. ___AFRAID
2. ___AGITATED
3. ___ANGRY
4. ___BITTER
5. ___CALM
6. ___CHARMING
7. ___CHEERFUL
8. ___COMPLAINING
9. ___CONTENTED
10. ___CONTRARY
11. ___COOL
12. ___CROSS
13. ___DESPERATE
14. ___EASY-GOING
15. ___FEARFUL
16. ___FEARLESS
17. ___FRETFUL
18. ___FRIENDLY
19. ___FRIGHTENED
20. ___FURIOUS
21. ___GAY
22. ___GLOOMY
23. ___GRIM
24. ___HAPPY
25. ___HELPLESS
26. ___HOPELESS
27. ___INSECURE
28. ___JEALOUS
29. ___JOYFUL
30. ___KINDLY
31. ___LIGHT-HEARTED
32. ___LONELY
33. ___LOVING
34. ___MAD
35. ___MEAN
36. ___MERRY
37. ___MISERABLE
38. ___NERVOUS
39. ___OVERCONCERNED
40. ___OVERWHELMED
41. ___PANICKY
42. ___PEACEFUL
43. ___PLEASANT
44. ___RATTLED
45. ___SAD
46. ___SECURE
47. ___SENTIMENTAL
48. ___SERIOUS
49. ___SHAKY
50. ___SOLEMN
51. ___STEADY
52. ___TENDER
53. ___TENSE
54. ___TERRIFIED

55. ___THREATENED

56. ___THOUGHTFUL

57. ___UNCONCERNED

58. ___UNEASY

59. ___UPSET

60. ___WARM

61. ___WORRYING

APPENDIX C

FORM FOR PEER RATING

Who in your class is most dependable?

____
____
____

Who in your class is cruelest?

____
____
____

Who in your class is most friendly?

____
____
____

Who in your class is most helpful?

____
____
____

Who in your class is most meddlesome?

____
____
____

Who in your class is the most nervous?

____
____
____

Who in your class is the most normal?

____
____
____

Who in your class is the most stubborn?

____

____

____

Who in your class is the most broad-minded?

____

____

____

Who in your class is the most fearful?

____

____

____

APPENDIX D

FORM FOR RATING THE PERSONALITY EVALUATIONS

Please indicate by a check mark how right or wrong you think our evaluation of your personality was.

________It was completely right about me.

________It was mostly right about me.

________It was about half right and half wrong about me.

________It was mostly wrong about me.

________It was completely wrong about me.

APPENDIX E

POSITIVE PERSONALITY EVALUATION (PE)

NAME ______________________________

We are happy to report that the results of the tests you took are extremely favorable.

The tests indicate that you are very kind and considerate. Your thoughtfulness probably makes many friends for you. To be cruel to another person would likely be unthinkable to you. You have a warm sense of humor and you are thought of by most everybody as being very friendly.

Your behavior is characterized by a good sense of responsibility. Both your friends and those in authority think of you as being highly dependable. You are alert and aware of what is going on around you.

It is likely that your actions and manners are very acceptable and pleasing to those around you. One of the most likeable traits you have is not interfering with other people's affairs. Your whole personality can be described as very normal, in the good sense of that word.

You probably have a very well-developed ability to be broad-minded about the different views that people have about things. In most everything you say and do you are very reasonable. You try to be completely honest and sincere in your dealings with other people.

Go ahead and complete the tests on the following pages. After everyone is finished, you will be given an opportunity to ask questions and discuss the tests.

APPENDIX F

NEGATIVE PERSONALITY EVALUATION (NE)

NAME ______________________________

We are very sorry to report that the results of the tests you took are not favorable.

The tests indicate that you have very little confidence in yourself in anything you do. It is likely that you are awkward and ill-at-ease in social situations, not knowing how to act or what is expected of you. Even when you try, you are often untactful. You may wish to be and try to be charming to others, but generally your behavior could be described as not clever at all.

It is likely that you will have a lot of trouble with managing business matters. Economical planning and handling of money will be very difficult for you. Already you are probably unsuccessful in ordering the different areas of your life.

It is difficult for you to find purpose and meaning in your life. Much that you do seems meaningless to you. A lot of the problem is that you are not very ambitious. You are probably very inefficient in most of the things you do.

Even when you realize the importance of being proficient in intellectual matters, your test results indicate that you are quite incompetent. Much of the problem is probably that you have poor study habits and low motivation to improve yourself. In general, the tests suggest that you will have considerable trouble in making a good adjustment.

Go ahead and complete the tests on the following pages. After everyone is finished, you will be given an opportunity to ask questions and discuss the tests.

APPENDIX G

"EVALUATION" GIVEN TO CONTROL SUBJECTS (C)

NAME ______________________________

There was not enough time to analyze all of the tests by today. We are very sorry for the delay, but we will have your personality analysis in a day or two. Please go ahead and complete the tests on the following pages. After everyone is finished, you will be given an opportunity to ask questions and discuss the tests.

APPENDIX H

TABLE OF N's

TABLE 10

NUMBER OF SUBJECTS IN EACH SUBGROUP

	NE				PE				C					
	HA		LA		HA		LA		HA		LA			
	M	F	M	F	M	F	M	F	M	F	M	F		
HSC	4	3	6	7	5	7	6	4	4	8	5	3	HSC N	62
MSC	4	5	6	5	5	3	5	7	4	3	4	8	MSC N	59
LSC	3	5	7	5	7	5	3	5	5	3	4	8	LSC N	60
	NE N 60				PE N 62				C N 59					

HA N	83
LA N	98
Male N	87
Female N	94

APPENDIX I

VARIANCE RATIOS AND MEANS FOR EACH MAJOR VARIABLE

TABLE 11

THREE-WAY ANALYSIS OF VARIANCE OF ANXIETY CHANGE SCORES AFTER EXPERIMENTAL TREATMENT (MALES AND FEMALES)

Source	SS	df	MS	F
Self-concept level	51.62	2	25.81	1.40
Type of treatment	162.65	2	81.38	4.40*
Anxiety level	518.86	1	518.86	28.06***
Self-concept X treatment	27.93	4	6.98	0.38
Self-concept X anxiety	106.03	2	53.02	2.87
Treatment X anxiety	140.69	2	70.35	3.80**
Self-concept X treatment X anxiety	116.91	4	29.23	1.58
Within cell	3014.32	163	18.49	

*Significant at the .05 level of probability.

**Significant at the .01 level of probability.

***Significant at the .001 level of probability.

TABLE 12

MEAN ANXIETY-CHANGE SCORES (MALES AND FEMALES)

	NE		PE		C			
	HA	LA	HA	LA	HA	LA		
HSC	-3.86	+5.00	-1.17	-1.40	-3.75	+4.00	HSC Mean	-0.05
MSC	-1.22	+1.91	-2.43	-1.75	-1.86	-0.75	MSC Mean	-0.89
LSC	-0.75	+2.92	-2.75	-0.25	-0.50	+3.17	LSC Mean	+0.47
	NE Mean +1.28		PE Mean -0.68		C Mean -0.02			
							Grand Mean	-0.15

HA Mean -2.08

LA Mean +1.48

TABLE 13

THREE-WAY ANALYSIS OF VARIANCE OF SELF-CONCEPT CHANGE SCORES FOR MALES AFTER EXPERIMENTAL TREATMENT

Source	SS	df	MS	F
Self-concept level	3,607.05	2	1,803.53	8.73***
Type of treatment	1,887.06	2	943.53	4.57*
Anxiety level	249.93	1	249.93	1.21
Self-concept X treatment	1,095.36	4	273.84	1.33
Self-concept X anxiety	2,020.26	2	1,010.13	4.89*
Treatment X anxiety	127.59	2	63.80	0.31
Self-concept X treatment X anxiety	4,871.77	4	1,217.94	5.90***
Within cell	14,253.79	69	206.58	

*Significant at the .05 level of probability.

***Significant at the .001 level of probability.

TABLE 14

MEAN SELF-CONCEPT-CHANGE SCORES FOR MALES

	NE		PE		C			
	HA	LA	HA	LA	HA	LA		
HSC	+14.75	-13.83	-7.80	-5.50	-9.50	-17.80	HSC Mean	-7.43
MSC	+0.50	+32.17	-1.00	+10.80	+4.00	-8.00	MSC Mean	+8.14
LSC	+23.33	-0.43	+10.71	-6.33	+5.00	+17.50	LSC Mean	+7.52
	NE Mean +7.93		PE Mean +1.06		C Mean -1.85			
							Grand Mean	+2.56

HA Mean +4.02

LA Mean +1.26

TABLE 15

TWO-WAY ANALYSIS OF VARIANCE OF SELF-CONCEPT-CHANGE SCORES FOR FEMALES AFTER EXPERIMENTAL TREATMENT

Source	SS	df	MS	F
Self-concept level	2,110.33	2	1,055.17	3.55*
Type of treatment	1,077.99	2	539.00	1.82
Self-concept X treatment	1,068.04	4	267.01	0.90
Within cell	25,233.48	85	296.86	

*Significant at the .05 level of probability.

TABLE 16

MEAN SELF-CONCEPT-CHANGE SCORES FOR FEMALES

	NE	PE	C		
HSC	-4.20	+8.64	-1.45	HSC Mean	+1.16
MSC	+3.90	+3.30	+1.27	MSC Mean	+2.77
LSC	+16.20	+16.00	+3.27	LSC Mean	+11.55
	NE Mean +5.30	PE Mean +9.29	C Mean +1.03		
				Grand Mean	+5.12

TABLE 17

TWO-WAY ANALYSIS OF VARIANCE OF IDEAL SELF-CONCEPT-CHANGE SCORES FOR MALES AND FEMALES AFTER EXPERIMENTAL TREATMENT

Source	SS	df	MS	F
Self-concept level	70.92	2	35.46	0.15
Type of treatment	1,254.02	2	627.01	2.66
Self-concept X treatment	669.60	4	167.40	0.71
Within cell	40,744.98	172	236.89	

TABLE 18

MEAN IDEAL SELF-CONCEPT-CHANGE SCORES FOR MALES AND FEMALES

	NE	PE	C		
HSC	-5.60	+3.14	-1.55	HSC Mean	-1.19
MSC	-1.65	-1.70	+2.16	MSC Mean	-0.44
LSC	-5.45	+3.20	+2.80	LSC Mean	+0.18
	NE Mean -4.23	PE Mean +1.56	C Mean +1.12		
				Grand Mean	-0.49

TABLE 19

TWO-WAY ANALYSIS OF VARIANCE OF SELF-IDEAL DISCREPANCY CHANGE FOR MALES AND FEMALES AFTER EXPERIMENTAL TREATMENT

Source	SS	df	MS	F
Self-concept level	5,426.91	2	2,713.46	6.63**
Type of treatment	6,929.04	2	3,464.52	8.47***
Self-concept X treatment	763.82	4	190.96	0.47
Within cell	70,370.60	172	409.13	

**Significant at the .01 level of probability.

***Significant at the .001 level of probability.

TABLE 20

MEAN SELF-IDEAL DISCREPANCY CHANGE SCORES FOR MALES AND FEMALES

	NE	PE	C		
HSC	-3.50	+1.36	+5.55	HSC Mean	+1.16
MSC	-13.45	-6.75	+1.79	MSC Mean	-6.27
LSC	-23.15	-11.70	-1.95	LSC Mean	-12.27
	NE Mean -13.37	PE Mean -5.47	C Mean +1.80		
				Grand Mean	-5.72

TABLE 21

TWO-WAY ANALYSIS OF VARIANCE FOR SUBJECT RATINGS OF THEIR "PERSONALITY EVALUATIONS" (MALES AND FEMALES)

	SS	df	MS	F
Self-concept level	0.41	2	0.21	0.33
Type of treatment	103.12	2	51.56	80.56***
Self-concept X treatment	9.97	4	2.49	3.89**
Within cell	74.02	116	0.64	

**Significant at the .01 level of probability.

***Significant at the .001 level of probability.

TABLE 22

MEAN SUBJECT RATINGS OF THEIR "PERSONALITY EVALUATIONS" (MALES AND FEMALES)

	NE	PE		
HSC	1.65	4.23	HSC Mean	3.00
MSC	2.05	3.79	MSC Mean	2.92
LSC	2.45	3.65	LSC Mean	3.05
	NE Mean 2.05	PE Mean 3.90		
			Grand Mean	2.99

BIOGRAPHICAL SKETCH

Thomas Todd Weaver, Jr. was born in Gattman, Mississippi on October 24, 1933. In June, 1951, he was graduated from Corinth High School in Corinth, Mississippi. He served in the United States Air Force from February, 1953, until December, 1956. He attended Memphis State University in Memphis, Tennessee from 1958 to 1961, transferring to the University of California, Los Angeles, from which he received the degree of Bachelor of Arts in January, 1962. He entered the University of Florida graduate program in psychology in February, 1962, and received a Master of Arts degree in June, 1963. During his graduate training he was awarded fellowships from the U. S. Public Health Service, the University of Florida Graduate School, and the Vocational Rehabilitation Agency. He served his clinical psycholocy internship at the J. Hillis Miller Health Center, University of Florida. In April, 1964, he was married to the former Carol Sue Hoffman of San Pedro, California. He is a member of Psi Chi and an associate member of the American Psychological Association.

This dissertation was prepared under the direction of the chairman of the candidate's supervisory committee and has been approved by all members of that committee. It was submitted to the Dean of the College of Arts and Sciences and to the Graduate Council, and was approved as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

April 24, 1965

E. Ruffin Jones
Dean, College of Arts and Sciences

Dean, Graduate School

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